## Special Conditions

Permit Number 38690

### Emission Standards and Fuel Specification

1. This permit covers only those sources of emissions listed in the attached table entitled Emission Sources - Maximum Allowable Emission Rates, and those sources are limited to the emission limits and other conditions specified in that attached table. In addition, this permit authorizes all emissions from planned startup and shutdown activities associated with facilities or groups of facilities that are authorized by this permit. The maximum annual sterilant gas usage is limited to 920,000 pounds (lb) of ethylene oxide (EO) or 13,800 lb of propylene oxide (PO). **(09/18)**

2. These facilities shall comply with the requirements of Title 30 Texas Administrative Code ' 113.200 (30 TAC ' 113.200), including the referenced requirements contained in Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), Subparts A and O Maximum Achievable Control Technology (MACT) Standard - Ethylene Oxide Emission Standards for Sterilization Facilities. **(07/06)**

### Operational Limitations, Work Practices, and Plant Design

3. Sterilant gas usage shall be limited to 100 percent of EO or PO. EO shall be used in all 10 sterilizers or EO used in 9 when PO is used in one during each sterilization cycle. **(10/10)**

4. Each of the ten sterilizing chambers shall be vented to its own scrubber. The ten scrubbers shall then be vented to a packed tower scrubber with a combined minimum control efficiency of 99.95 percent. **(10/10)**

   All chamber exhaust fugitive gases shall be vented to a separate packed tower scrubber with a minimum of 99% or 1 part per million by volume (ppmv) maximum outlet concentration. **(10/10)**

5. Under no circumstances shall the sterilizers, degassing chambers, makeup tanks, or process piping be allowed to vent directly to the atmosphere without passing through the scrubber when EO or PO is present.

6. The EO/PO scrubber solution pH shall be maintained between 0.5 and 1.2.Process gases shall be stored in such a manner as to prevent damage to the storage container and release of uncontrolled emissions.

7. All air pollution abatement equipment shall be properly maintained and operated during the operation of these facilities. Cleaning and maintenance of the abatement equipment shall be performed as recommended by the manufacturer and as necessary so that the equipment efficiency can be adequately maintained.

8. All hooding, duct, and collection systems shall be effective in capturing emissions from this equipment and in minimizing fugitive emissions from the building. The hooding and duct system shall be maintained free of holes, cracks, and other conditions that would reduce the collection efficiency of the emission capture system.

9. All 100 percent EO/PO supply drums (all drums in use or empty) shall be grounded to earth to suppress potential sparks.

10. All sterilizer technicians and other personnel involved in any aspect of ETO sterilization shall be trained in the safe handling and use of EO. There shall be trained personnel any time sterilization is taking place or whenever there is a maintenance going on.

11. The facility is authorized to operate:

    24 hours/day, 7 days/week, 52 weeks/year, and 8,760 hours/year. **(10/10)**

**Initial Determination of Compliance**

12. The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the packed tower scrubbers. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

    A. The appropriate Texas Commission on Environmental Quality (TCEQ) Regional Office in the region where the source is located shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting.

       The notice shall include:

       (1) Date for pretest meeting.

       (2) Date sampling will occur.

       (3) Name of firm conducting sampling.

       (4) Type of sampling equipment to be used.

       (5) Method or procedure to be used in sampling.

       The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

       A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or U.S. Environmental Protection Agency (EPA) sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director or the TCEQ Director of the Compliance Support Division shall approve or disapprove of any deviation from specified sampling procedures.

       Requests to waive testing for any pollutant specified in B of this condition shall be submitted to the TCEQ Office of Permitting, Remediation, and Registration, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for New Source Performance Standard testing which must have EPA approval shall be submitted to the TCEQ Austin Compliance Support Division.

    B. Air contaminants emitted from the Packed Tower Scrubber 1 to be tested for include (but are not limited to) EO or PO. **(10/10)**

    C. Sampling shall occur within 60 days after initial start-up of the facilities and at such other times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office. Additional time to comply with the applicable requirements of 40 CFR 60 and 40 CFR 61 requires EPA approval, and requests shall be submitted to the TCEQ Compliance Support Division.

D. The plant shall operate at maximum production rates during stack emission testing. Primary operating parameters that enable determination of production rate shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting. If the plant is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.

E. Two copies of the final sampling report shall be forwarded to the TCEQ within 30 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the TCEQ Arlington Regional Office.

One copy to the TCEQ Austin Compliance Support Division, Engineering Services Team.

**Continuous Determination of Compliance**

13. The scrubber solution shall be tested weekly by the use of a pH meter or similar instrument. The solution shall be maintained between 0.5 and 1.2 pH. If the pH is out of range for two consecutive times, the respective sterilizer will be taken out of service and the scrubber will be regenerated or repaired as required. No sterilizing cycle can be started unless there is an effective scrubber on-line. Records of the calculated removal efficiencies shall be recorded and maintained for a period of two years. These records shall be made available to personnel of the TCEQ upon request.

**Recordkeeping Requirements**

14. The holder of this permit shall maintain the records of all sterilant gas usage, the weekly pH readings, maintenance/cleaning activities of the abatement equipment and hooding, and duct and collection systems inspection. **(10/10)**

These records shall be kept on-site for 24-month rolling period and made available at the request of personnel from the TCEQ or any other air pollution control program having jurisdiction. **(10/10)**

Date: September 24, 2018

Emission Sources - Maximum Allowable Emission Rates

Permit Number 38690

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates (5) | |
|---|---|---|---|---|
| | | | lbs/hour | TPY (4) |
| Scrubber 1 | Packed Tower | EO | 0.22 | 0.23 |
| | | PO | 0.02 | 0.07 |
| Scrubber 2 | Packed Tower | EO | 0.22 | 0.07 |
| | | PO | 0.01 | 0.01 |
| Boiler 1 | Steam Boiler | $PM_{10}$ | 0.04 | 0.18 |
| | | VOC | 0.02 | 0.08 |
| | | $NO_x$ | 0.35 | 1.53 |
| | | CO | 0.07 | 0.32 |
| | | $SO_2$ | <0.01 | 0.01 |
| Boiler 2 | Steam Boiler | $PM_{10}$ | 0.04 | 0.18 |
| | | VOC | 0.02 | 0.08 |
| | | $NO_x$ | 0.35 | 1.53 |
| | | CO | 0.07 | 0.32 |
| | | $SO_2$ | <0.01 | 0.01 |

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
$NO_x$ - total oxides of nitrogen
$SO_2$ - sulfur dioxide
$PM_{10}$ - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
CO - carbon monoxide
EO - ethylene oxide
PO - propylene oxide
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit.

Date: September 24, 2018

Project Number: 288339